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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,416	11/04/2003	Susumu Kurita	SONYJP 3.0-347	5820

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EXAMINER	
PERVAN, MICHAEL	
ART UNIT	PAPER NUMBER
2629	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/700,416	KURITA ET AL.	
	Examiner	Art Unit	
	Michael Pervan	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 August 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) ~~1-25~~ 1, 5-7, 11-13, 17-19, 23-25 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,5-7,11-13,17-19 and 23-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *7/31/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 25 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim has redundant language in lines 9-11, "the viewfinder device makes an inquiry to the imaging apparatus as to whether the imaging apparatus is controlling the brightness of the illumination provided by said illuminating means in coordination with at least one of *controlling the contrast of the displayed image and controlling the contrast of the displayed image*." However, examiner believes, after reading the specification, that the last three lines should instead be "controlling the contrast of the displayed image and brightness the contrast of the displayed image" and will assume this to be correct until told otherwise.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 5-7, 11-13, 17-19 and 23-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Fukushima et al (EP 0,979,003; as submitted by applicant).

In regards to claim 1, Fukushima discloses (Fig. 1) an image display controlling apparatus for adjusting the contrast of an image (paragraph 17), said apparatus comprising:

discriminating means (camera-unit controller 17) for receiving an image signal (paragraphs 48 and 49; the discriminating means (camera-unit controller) receives an image signal (drive/control) from the display generating means (driver), which contains information about the picture being displayed), for discriminating a signal format of the image signal, the signal format including at least one of lightness of the image and color of the image (paragraphs 48 and 49; since the discriminating means (camera-unit controller) controls the lightness (contrast) and the brightness of the image signal via the controller means (display-unit controller), it must be able to discriminate which needs to be adjusted and by how much), and for generating a discrimination signal based on the result of said discrimination (paragraphs 48 and 49; since the discriminating means (camera-unit controller) is able to control the level adjustment means (picture processor) via the controller (display-unit controller), it must generate a control signal that is sent to the controller (display-unit controller));

controller means (display-unit controller 26) for receiving the discrimination signal and generating a control signal based on the received discrimination signal (paragraphs 17, 48 and 49; the controller means (display-unit controller) controls the brightness and lightness (contrast) depending on the picture appearing on the LCD, via the discriminating means);

level adjustment means (picture processor 22) for receiving the control signal adjusting a luminance signal level of the image signal, based on the received control signal (paragraphs 17, 41, 48 and 49; level adjustment means (picture processor) is controlled by the discriminating means (camera-unit controller) via controller means (display-unit controller) to adjust the brightness and lightness (contrast) of the image appearing on the LCD);

display means (liquid-crystal panel 23a) for displaying an image in accordance with the adjusted luminance signal (paragraphs 18 and 19);

illuminating means (back-light 23b) for illuminating said display means (paragraph 44); and

illumination controlling means (back-light controller 25) for receiving the control signal and controlling the brightness of the illumination provided by said illuminating means based on the control signal (paragraphs 44 and 45; illumination controlling means (back-light controller) is controlled by the discriminating means (camera-unit controller) via controller means (display-unit controller) so that the picture appearing on the LCD has proper brightness, lightness (contrast) and illumination from the back-light);

said level adjustment means operating in coordination with said illumination controlling means (paragraph 61; since the brightness and lightness (contrast) of the image on the display means is suppressed and the brightness of the illumination means is reduced, the level adjustment means and the illumination controlling means work in tandem) such that if said illumination controlling means lowers the illumination brightness to a minimum brightness at which stable discharge current is maintained in

said illuminating means without attaining a desired image contrast, said level adjustment means lowers the luminance signal level to further adjust the image contrast until the desired image contrast is attained (paragraphs 61-63; if the illumination means reduced to the point at which the illumination means is off, then the image can not be seen on the display, therefore there must be a minimum at which the illumination means can be reduced to. Then in order to optimize the image signal for the brightness of the circumference the level adjustment means must further reduce the brightness and contrast if the desired contrast is not yet met).

In regards to claim 5, Fukushima discloses the image display controlling apparatus according to claim 1, further comprising:

display image generating means (driver 24) for converting the image, which is in accordance with the adjusted luminance signal level into a signal matched to said display means (paragraph 52).

In regards to claim 6, Fukushima discloses the image display controlling apparatus according to claim 1, wherein said display means is a liquid crystal display (paragraph 13).

In regards to claims 7, 11 and 12, they claim method steps paralleled to the structural means cited in claims 1, 5 and 6 respectively and are therefore rejected for the same reasons, see MPEP 2112.02 *In re King* ("When the prior art device is the same as a device described in the specification for carrying out the claimed method, it can be assumed the device will inherently perform the claimed process").

In regards to claim 13, Fukushima discloses (Fig. 1) an imaging apparatus (camera unit 11), comprising:

image signal generating means (signal processing circuit 15) for imaging an object to generate an image signal;

discriminating means (camera-unit controller 17) for receiving an image signal (paragraphs 48 and 49; the discriminating means (camera-unit controller) receives an image signal (drive/control) from the display generating means (driver), which contains information about the picture being displayed), for discriminating a signal format of the image signal, the signal format including at least one of lightness of the image and color of the image (paragraphs 48 and 49; since the discriminating means (camera-unit controller) controls the lightness (contrast) and the brightness of the image signal via the controller means (display-unit controller), it must be able to discriminate which needs to be adjusted and by how much), and for generating a discrimination signal based on the result of said discrimination (paragraphs 48 and 49; since the discriminating means (camera-unit controller) is able to control the level adjustment means (picture processor) via the controller (display-unit controller), it must generate a control signal that is sent to the controller (display-unit controller));

controller means (display-unit controller 26) for receiving the discrimination signal and generating a control signal based on the received discrimination signal (paragraphs 17, 48 and 49; the controller means (display-unit controller) controls the brightness and lightness (contrast) depending on the picture appearing on the LCD, via the discriminating means);

level adjustment means (picture processor 22) for receiving the control signal and for adjusting a luminance signal level in the input image signal based on the received control signal (paragraphs 17, 41, 48 and 49; level adjustment means (picture processor) is controlled by the discriminating means (camera-unit controller) via controller means (display-unit controller) to adjust the brightness and lightness (contrast) of the image appearing on the LCD);

display means (liquid-crystal panel 23a) for displaying an image in accordance with the adjusted luminance signal (paragraphs 18 and 19);

illuminating means (back-light 23b) for illuminating said display means (paragraph 44); and

illumination controlling means (back-light controller 25) for receiving the control signal and controlling the brightness of the illumination provided by said illuminating means based on the control signal (paragraphs 44 and 45; illumination controlling means (back-light controller) is controlled by the discriminating means (camera-unit controller) via controller means (display-unit controller) so that the picture appearing on the LCD has proper brightness, lightness (contrast) and illumination from the back-light);

said level adjustment means operating in coordination with said illumination controlling means (paragraph 61; since the brightness and lightness (contrast) of the image on the display means is suppressed and the brightness of the illumination means is reduced, the level adjustment means and the illumination controlling means work in tandem) such that if said illumination controlling means lowers the illumination brightness to a minimum brightness at which stable discharge current is maintained in

said illuminating means without attaining a desired image contrast, said level adjustment means lowers the luminance signal level to further adjust the image contrast until the desired image contrast is attained (paragraphs 61-63; if the illumination means reduced to the point at which the illumination means is off, then the image can not be seen on the display, therefore there must be a minimum at which the illumination means can be reduced to. Then in order to optimize the image signal for the brightness of the circumference the level adjustment means must further reduce the brightness and contrast if the desired contrast is not yet met).

In regards to claim 17, Fukushima discloses the imaging apparatus according to claim 13, further comprising

display image generating means (driver 24) for converting the image, which is in accordance with the adjusted luminance signal level into a signal matched to said display means (paragraph 52).

In regards to claim 18, Fukushima discloses the imaging apparatus according to claim 13, wherein said display means is a liquid crystal display (paragraph 13).

In regards to claim 19, Fukushima discloses (Fig. 1) a viewfinder device (display unit 20) for viewing an image based on an image signal provided by an imaging apparatus (camera unit 11), said viewfinder device comprising:

discriminating means (camera-unit controller 17) for discriminating a signal format of the image signal, the signal format including at least one of lightness of the image and color of the image (paragraphs 48 and 49; since the discriminating means (camera-unit controller) controls the lightness (contrast) and the brightness of the image

signal via the controller means (display-unit controller), it must be able to discriminate which needs to be adjusted and by how much), and for generating a discrimination signal based on the result of said discrimination (paragraphs 48 and 49; since the discriminating means (camera-unit controller) is able to control the level adjustment means (picture processor) via the controller (display-unit controller), it must generate a control signal that is sent to the controller (display-unit controller));

controller means (display-unit controller 26) for receiving the discrimination signal and generating a control signal based on the received discrimination signal (paragraphs 17, 48 and 49; the controller means (display-unit controller) controls the brightness and lightness (contrast) depending on the picture appearing on the LCD, via the discriminating means);

level adjustment means (picture processor 22) for receiving the control signal and for adjusting a luminance signal level in the input image signal based on the received control signal (paragraphs 17, 41, 48 and 49; level adjustment means (picture processor) is controlled by the discriminating means (camera-unit controller) via controller means (display-unit controller) to adjust the brightness and lightness (contrast) of the image appearing on the LCD);

display means (liquid-crystal panel 23a) for displaying an image in accordance with the adjusted luminance signal (paragraphs 18 and 19);

illuminating means (back-light 23b) for illuminating said display means (paragraph 44); and

illumination controlling means (back-light controller 25) for receiving the control signal and controlling the brightness of the illumination provided by said illuminating means based on the control signal (paragraphs 44 and 45; illumination controlling means (back-light controller) is controlled by the discriminating means (camera-unit controller) via controller means (display-unit controller) so that the picture appearing on the LCD has proper brightness, lightness (contrast) and illumination from the back-light);

said level adjustment means operating in coordination with said illumination controlling means (paragraph 61; since the brightness and lightness (contrast) of the image on the display means is suppressed and the brightness of the illumination means is reduced, the level adjustment means and the illumination controlling means work in tandem) such that if said illumination controlling means lowers the illumination brightness to a minimum brightness at which stable discharge current is maintained in said illuminating means without attaining a desired image contrast, said level adjustment means lowers the luminance signal level to further adjust the image contrast until the desired image contrast is attained (paragraphs 61-63; if the illumination means reduced to the point at which the illumination means is off, then the image can not be seen on the display, therefore there must be a minimum at which the illumination means can be reduced to. Then in order to optimize the image signal for the brightness of the circumference the level adjustment means must further reduce the brightness and contrast if the desired contrast is not yet met).

In regards to claim 23, Fukushima discloses the viewfinder device according to claim 19, further comprising:

displayed image generating means (driver 24) for converting the image, which is in accordance with the adjusted luminance signal level into a signal matched to said display means (paragraph 52).

In regards to claim 24, Fukushima discloses the viewfinder device according to claim 19, wherein said display means is a liquid crystal display (paragraph 13).

In regards to claim 25, Fukushima discloses the viewfinder device according to claim 19, wherein said controller means includes means for exchanging the control information with said imaging apparatus (paragraphs 48 and 49; the discriminating means (camera-unit controller) communicates with the controller (display-unit controller)), and the viewfinder device makes an inquiry to the imaging apparatus as to whether the imaging apparatus is controlling the brightness of the illumination provided by said illuminating means in coordination with at least one of controlling the contrast of the displayed image and controlling the brightness of the displayed image (paragraphs 48-49; since the image signal (drive/control) is fed back to the discrimination means (camera-unit controller) and adjustments are made if necessary to the imaging device which alters the signal to display an optimized image on the display means, therefore the viewfinder inquiries the imaging apparatus).

Response to Arguments

5. Applicant's arguments filed August 28, 2006 have been fully considered but they are not persuasive.

Applicant (on page 13) argues that neither Fukushima nor Isogawa do not disclose or suggest discriminating a signal format of an image signal where the image

signal's format includes one or more of lightness of the image and color of the image, but rather Fukushima discloses making adjustments in accordance with the brightness of the circumference of an image. Examiner respectfully disagrees.

The rejections of claims 1, 7, 13 and 19 detail how Fukushima teaches a discriminating means for discriminating a signal format.

Applicant (also on page 13) argues that Fukushima nor Isogawa disclose or suggest that if illumination brightness is lowered to a minimum brightness at which stable discharge current is maintained in an illuminating means without attaining a desired image contrast, the luminance signal level is lowered to further adjust the image contrast until the desired image contrast is attained. Examiner respectfully disagrees.

The rejections of claims 1, 7, 13 and 19 detail how Fukushima teaches that if illumination brightness is lowered to a minimum brightness at which stable discharge current is maintained in an illuminating means without attaining a desired image contrast, the luminance signal level is lowered to further adjust the image contrast until the desired image contrast is attained.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Prior art (Katada US 5,933,089) is deemed relevant since it discusses adjusting the contrast corresponding to the received light quantity of the LCD detected by a light sensor. Prior art (Miller et al US 6,411,306) is deemed relevant since it discusses continual adjustment of the luminance and contrast of a display unit according to changing lighting conditions.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Pervan whose telephone number is (571) 272-0910. The examiner can normally be reached on Monday - Friday between 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MVP
Nov. 7, 2006

AMR A. AWAD
SUPERVISORY PATENT EXAMINER